

SEP 24 2013

Ex. 6 PII

Subject: Your water well sample results

Dear [REDACTED]

On August 22, 2013, I, as a representative of the U.S. Environmental Protection Agency collected water samples from your water well pursuant to your request. These samples were collected and analyzed to verify that your drinking water well has not been affected by contamination from the nearby Occidental facility. The next day I submitted the samples to the EPA's Regional Laboratory in Kansas City for analysis. The laboratory report dated September 17, 2013 showing the results is enclosed.

The samples were analyzed for specific chemical compounds that have been detected in the ground water associated with contamination from the Occidental facility. The compounds analyzed for included volatile organic compounds (VOCs) commonly used and referred to as solvents. The laboratory results indicate that none of these contaminants were detected in the water from your well. You can see the list of compounds in the left hand column of the laboratory report and the lowest limit of detection for that specific compound in the middle column after the words, "Less than ____." Understand that every analysis has lower limits at which a compound could be present at such low levels it is impossible to detect; however for these analyses the limits of detection were sufficiently low to ensure that for each compound which has a federal drinking water standard, the concentration, if present at all, is below that level. In conclusion, there is no indication your well has been impacted by the contamination associated with Occidental.

The EPA will continue to evaluate the potential for contamination from the Occidental facility to affect your drinking water well. As the EPA is directing and overseeing the investigation and remediation work being performed by Occidental, for the most part this will be accomplished by reviewing the results of sampling performed by Occidental, rather than the EPA doing follow-up sampling. Please feel free to contact me at (913) 551-7279, or by email at roberts.bradley@epa.gov if you have questions about these sampling results or the investigation and clean-up work being performed by Occidental that is on-going in your area.

Sincerely,

Brad Roberts, Environmental Scientist
Waste Remediation and Permitting Branch
Air and Waste Management Division

Enclosure: USEPA Region 7 Results of Sample Analysis

AWMD/WRAP/KNRP/BR:bft:09/24/13:H:AWMD/WRAP/Cores13/BR:[REDACTED].doc

WRAP

Roberts

09/24/13

WRAP

For Johnson

09/24/13

Ex. 6 PII

RCRA



551086



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 7

11201 Renner Boulevard
Lenexa, Kansas 66219

SEP 24 2013

Ex. 6 PII

Subject: Your water well sample results

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Sincerely,

Brad Roberts, Environmental Scientist
Waste Remediation and Permitting Branch
Air and Waste Management Division

Enclosure: USEPA Region 7 Results of Sample Analysis



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**United States Environmental Protection Agency
Region 7
11201 Renner Blvd
Lenexa, KS 66219**

09/17/2013

Results of Sample Analysis

Sample: 6174-1

Project ID: BROCNRW

These are the results from the analysis of water sample number 6174-1. This sample was collected on 08/22/2013 at the location described as: [REDACTED]. If you have any questions about these results, contact Bradley Roberts at the above address or by calling 913-557-7279. Correspondence should refer to sample number 6174-1 for project: BROCNRW - Occidental Chemicals 2 Neighboring Residential well sampling.

Ex. 6 PII

Analysis/Analyte	Amount Found	Units
<u>Volatile Organic Compounds (VOCs) in Drinking Water by Gas Chromatography and Mass Selective Detection (GC/MS)</u>		
Acetone	Less Than 10	Micrograms per Liter
Benzene	Less Than 0.5	Micrograms per Liter
Bromobenzene	Less Than 0.5	Micrograms per Liter
Bromochloromethane	Less Than 0.5	Micrograms per Liter
Bromodichloromethane	Less Than 0.5	Micrograms per Liter
Bromoform	Less Than 0.5	Micrograms per Liter
Bromomethane	Less Than 1	Micrograms per Liter
2-Butanone	Less Than 5	Micrograms per Liter
n-Butylbenzene	Less Than 0.5	Micrograms per Liter
sec-Butylbenzene	Less Than 0.5	Micrograms per Liter
tert-Butylbenzene	Less Than 0.5	Micrograms per Liter
Carbon Disulfide	Less Than 0.5	Micrograms per Liter
Carbon Tetrachloride	Less Than 0.5	Micrograms per Liter
Chlorobenzene	Less Than 0.5	Micrograms per Liter
Chloroethane	Less Than 0.5	Micrograms per Liter
Chloroform	Less Than 0.5	Micrograms per Liter
Chloromethane	Less Than 1	Micrograms per Liter
2-Chlorotoluene	Less Than 0.5	Micrograms per Liter
4-Chlorotoluene	Less Than 0.5	Micrograms per Liter
1,2-Dibromo-3-Chloropropane	Less Than 1	Micrograms per Liter
Dibromochloromethane	Less Than 0.5	Micrograms per Liter
1,2-Dibromoethane	Less Than 0.5	Micrograms per Liter
Dibromomethane	Less Than 0.5	Micrograms per Liter

Analysis/Analyte	Amount Found	Units
1,2-Dichlorobenzene	Less Than 0.5	Micrograms per Liter
1,3-Dichlorobenzene	Less Than 0.5	Micrograms per Liter
1,4-Dichlorobenzene	Less Than 0.5	Micrograms per Liter
Dichlorodifluoromethane	Less Than 0.5	Micrograms per Liter
1,1-Dichloroethane	Less Than 0.5	Micrograms per Liter
1,2-Dichloroethane	Less Than 0.5	Micrograms per Liter
1,1-Dichloroethene	Less Than 0.5	Micrograms per Liter
cis-1,2-Dichloroethene	Less Than 0.5	Micrograms per Liter
trans-1,2-Dichloroethene	Less Than 0.5	Micrograms per Liter
1,2-Dichloropropane	Less Than 0.5	Micrograms per Liter
1,3-Dichloropropane	Less Than 0.5	Micrograms per Liter
2,2-Dichloropropane	Less Than 1	Micrograms per Liter
cis-1,3-Dichloropropene	Less Than 0.5	Micrograms per Liter
trans-1,3-Dichloropropene	Less Than 0.5	Micrograms per Liter
Ethyl Benzene	Less Than 0.5	Micrograms per Liter
Hexachlorobutadiene	Less Than 0.5	Micrograms per Liter
2-Hexanone	Less Than 5	Micrograms per Liter
Isopropylbenzene	Less Than 0.5	Micrograms per Liter
p-Isopropyltoluene	Less Than 0.5	Micrograms per Liter
Methylene Chloride	Less Than 5	Micrograms per Liter
4-Methyl-2-Pentanone	Less Than 5	Micrograms per Liter
Naphthalene	Less Than 1	Micrograms per Liter
n-Propylbenzene	Less Than 0.5	Micrograms per Liter
Styrene	Less Than 0.5	Micrograms per Liter
1,1,1,2-Tetrachloroethane	Less Than 0.5	Micrograms per Liter
1,1,2,2-Tetrachloroethane	Less Than 1	Micrograms per Liter
Tetrachloroethene	Less Than 0.5	Micrograms per Liter
Toluene	Less Than 0.5	Micrograms per Liter
1,2,3-Trichlorobenzene	Less Than 0.5	Micrograms per Liter
1,2,4-Trichlorobenzene	Less Than 0.5	Micrograms per Liter
1,1,1-Trichloroethane	Less Than 0.5	Micrograms per Liter
1,1,2-Trichloroethane	Less Than 0.5	Micrograms per Liter
Trichloroethene	Less Than 0.5	Micrograms per Liter
Trichlorofluoromethane	Less Than 1	Micrograms per Liter
1,2,3-Trichloropropane	Less Than 0.5	Micrograms per Liter

Sample: 6174-1
Project ID: BROCC2NRW

Analysis/Analyte	Amount Found	Units
1,2,4-Trimethylbenzene	Less Than 0.5	Micrograms per Liter
1,3,5-Trimethylbenzene	Less Than 0.5	Micrograms per Liter
Vinyl Chloride	Less Than 0.5	Micrograms per Liter
m and/or p-Xylene	Less Than 0.5	Micrograms per Liter
o-Xylene	Less Than 0.5	Micrograms per Liter

**United States Environmental Protection Agency
Region 7
11201 Renner Blvd
Lenexa, KS 66219**

09/17/2013

Results of Sample Analysis

Sample: 6174-2

Project ID: BROCC2NRW

These are the results from the analysis of water sample number 6174-2. This sample was collected on 08/22/2013 at the location described as: [REDACTED] [REDACTED]. If you have any questions about these results, contact Bradley Roberts at the above address or by calling 913-557-7279. Correspondence should refer to sample number 6174-2 for project: BROCC2NRW - Occidental Chemicals 2 Neighboring Residential well sampling.

Ex. 6 PII

Analysis/Analyte	Amount Found	Units
<u>Volatile Organic Compounds (VOCs) in Drinking Water by Gas Chromatography and Mass Selective Detection (GC/MS)</u>		
Acetone	Less Than 10	Micrograms per Liter
Benzene	Less Than 0.5	Micrograms per Liter
Bromobenzene	Less Than 0.5	Micrograms per Liter
Bromochloromethane	Less Than 0.5	Micrograms per Liter
Bromodichloromethane	Less Than 0.5	Micrograms per Liter
Bromoform	Less Than 0.5	Micrograms per Liter
Bromomethane	Less Than 1	Micrograms per Liter
2-Butanone	Less Than 5	Micrograms per Liter
n-Butylbenzene	Less Than 0.5	Micrograms per Liter
sec-Butylbenzene	Less Than 0.5	Micrograms per Liter
tert-Butylbenzene	Less Than 0.5	Micrograms per Liter
Carbon Disulfide	Less Than 0.5	Micrograms per Liter
Carbon Tetrachloride	Less Than 0.5	Micrograms per Liter
Chlorobenzene	Less Than 0.5	Micrograms per Liter
Chloroethane	Less Than 0.5	Micrograms per Liter
Chloroform	Less Than 0.5	Micrograms per Liter
Chloromethane	Less Than 1	Micrograms per Liter
2-Chlorotoluene	Less Than 0.5	Micrograms per Liter
4-Chlorotoluene	Less Than 0.5	Micrograms per Liter
1,2-Dibromo-3-Chloropropane	Less Than 1	Micrograms per Liter
Dibromochloromethane	Less Than 0.5	Micrograms per Liter
1,2-Dibromoethane	Less Than 0.5	Micrograms per Liter
Dibromomethane	Less Than 0.5	Micrograms per Liter

Analysis/Analyte	Amount Found	Units
1,2-Dichlorobenzene	Less Than 0.5	Micrograms per Liter
1,3-Dichlorobenzene	Less Than 0.5	Micrograms per Liter
1,4-Dichlorobenzene	Less Than 0.5	Micrograms per Liter
Dichlorodifluoromethane	Less Than 0.5	Micrograms per Liter
1,1-Dichloroethane	Less Than 0.5	Micrograms per Liter
1,2-Dichloroethane	Less Than 0.5	Micrograms per Liter
1,1-Dichloroethene	Less Than 0.5	Micrograms per Liter
cis-1,2-Dichloroethene	Less Than 0.5	Micrograms per Liter
trans-1,2-Dichloroethene	Less Than 0.5	Micrograms per Liter
1,2-Dichloropropane	Less Than 0.5	Micrograms per Liter
1,3-Dichloropropane	Less Than 0.5	Micrograms per Liter
2,2-Dichloropropane	Less Than 1	Micrograms per Liter
cis-1,3-Dichloropropene	Less Than 0.5	Micrograms per Liter
trans-1,3-Dichloropropene	Less Than 0.5	Micrograms per Liter
Ethyl Benzene	Less Than 0.5	Micrograms per Liter
Hexachlorobutadiene	Less Than 0.5	Micrograms per Liter
2-Hexanone	Less Than 5	Micrograms per Liter
Isopropylbenzene	Less Than 0.5	Micrograms per Liter
p-Isopropyltoluene	Less Than 0.5	Micrograms per Liter
Methylene Chloride	Less Than 5	Micrograms per Liter
4-Methyl-2-Pentanone	Less Than 5	Micrograms per Liter
Naphthalene	Less Than 1	Micrograms per Liter
n-Propylbenzene	Less Than 0.5	Micrograms per Liter
Styrene	Less Than 0.5	Micrograms per Liter
1,1,1,2-Tetrachloroethane	Less Than 0.5	Micrograms per Liter
1,1,2,2-Tetrachloroethane	Less Than 1	Micrograms per Liter
Tetrachloroethene	Less Than 0.5	Micrograms per Liter
Toluene	Less Than 0.5	Micrograms per Liter
1,2,3-Trichlorobenzene	Less Than 0.5	Micrograms per Liter
1,2,4-Trichlorobenzene	Less Than 0.5	Micrograms per Liter
1,1,1-Trichloroethane	Less Than 0.5	Micrograms per Liter
1,1,2-Trichloroethane	Less Than 0.5	Micrograms per Liter
Trichloroethene	Less Than 0.5	Micrograms per Liter
Trichlorofluoromethane	Less Than 1	Micrograms per Liter
1,2,3-Trichloropropane	Less Than 0.5	Micrograms per Liter

Sample: 6174-2
Project ID: BROC2NRW

Analysis/Analyte	Amount Found	Units
1,2,4-Trimethylbenzene	Less Than 0.5	Micrograms per Liter
1,3,5-Trimethylbenzene	Less Than 0.5	Micrograms per Liter
Vinyl Chloride	Less Than 0.5	Micrograms per Liter
m and/or p-Xylene	Less Than 0.5	Micrograms per Liter
o-Xylene	Less Than 0.5	Micrograms per Liter

**United States Environmental Protection Agency
Region 7
11201 Renner Blvd
Lenexa, KS 66219**

09/17/2013

Results of Sample Analysis

Sample: 6174-2

Project ID: BROCN2NRW

These are the results from the analysis of water sample number 6174-2. This sample was collected on 08/22/2013 at the location described as: [REDACTED] If you have any questions about these results, contact Bradley Roberts at the above address or by calling 913-551-7279. Correspondence should refer to sample number 6174-2 for project: BROCN2NRW - Occidental Chemicals 2 Neighboring Residential well sampling.

Ex. 6 PII

Analysis/Analyte	Amount Found	Units
<u>Volatile Organic Compounds (VOCs) in Drinking Water by Gas Chromatography and Mass Selective Detection (GC/MS)</u>		
Acetone	Less Than 10	Micrograms per Liter
Benzene	Less Than 0.5	Micrograms per Liter
Bromobenzene	Less Than 0.5	Micrograms per Liter
Bromochloromethane	Less Than 0.5	Micrograms per Liter
Bromodichloromethane	Less Than 0.5	Micrograms per Liter
Bromoform	Less Than 0.5	Micrograms per Liter
Bromomethane	Less Than 1	Micrograms per Liter
2-Butanone	Less Than 5	Micrograms per Liter
n-Butylbenzene	Less Than 0.5	Micrograms per Liter
sec-Butylbenzene	Less Than 0.5	Micrograms per Liter
tert-Butylbenzene	Less Than 0.5	Micrograms per Liter
Carbon Disulfide	Less Than 0.5	Micrograms per Liter
Carbon Tetrachloride	Less Than 0.5	Micrograms per Liter
Chlorobenzene	Less Than 0.5	Micrograms per Liter
Chloroethane	Less Than 0.5	Micrograms per Liter
Chloroform	Less Than 0.5	Micrograms per Liter
Chloromethane	Less Than 1	Micrograms per Liter
2-Chlorotoluene	Less Than 0.5	Micrograms per Liter
4-Chlorotoluene	Less Than 0.5	Micrograms per Liter
1,2-Dibromo-3-Chloropropane	Less Than 1	Micrograms per Liter
Dibromochloromethane	Less Than 0.5	Micrograms per Liter
1,2-Dibromoethane	Less Than 0.5	Micrograms per Liter
Dibromomethane	Less Than 0.5	Micrograms per Liter

Analysis/Analyte	Amount Found	Units
1,2-Dichlorobenzene	Less Than 0.5	Micrograms per Liter
1,3-Dichlorobenzene	Less Than 0.5	Micrograms per Liter
1,4-Dichlorobenzene	Less Than 0.5	Micrograms per Liter
Dichlorodifluoromethane	Less Than 0.5	Micrograms per Liter
1,1-Dichloroethane	Less Than 0.5	Micrograms per Liter
1,2-Dichloroethane	Less Than 0.5	Micrograms per Liter
1,1-Dichloroethene	Less Than 0.5	Micrograms per Liter
cis-1,2-Dichloroethene	Less Than 0.5	Micrograms per Liter
trans-1,2-Dichloroethene	Less Than 0.5	Micrograms per Liter
1,2-Dichloropropane	Less Than 0.5	Micrograms per Liter
1,3-Dichloropropane	Less Than 0.5	Micrograms per Liter
2,2-Dichloropropane	Less Than 1	Micrograms per Liter
cis-1,3-Dichloropropene	Less Than 0.5	Micrograms per Liter
trans-1,3-Dichloropropene	Less Than 0.5	Micrograms per Liter
Ethyl Benzene	Less Than 0.5	Micrograms per Liter
Hexachlorobutadiene	Less Than 0.5	Micrograms per Liter
2-Hexanone	Less Than 5	Micrograms per Liter
Isopropylbenzene	Less Than 0.5	Micrograms per Liter
p-Isopropyltoluene	Less Than 0.5	Micrograms per Liter
Methylene Chloride	Less Than 5	Micrograms per Liter
4-Methyl-2-Pentanone	Less Than 5	Micrograms per Liter
Naphthalene	Less Than 1	Micrograms per Liter
n-Propylbenzene	Less Than 0.5	Micrograms per Liter
Styrene	Less Than 0.5	Micrograms per Liter
1,1,1,2-Tetrachloroethane	Less Than 0.5	Micrograms per Liter
1,1,2,2-Tetrachloroethane	Less Than 1	Micrograms per Liter
Tetrachloroethene	Less Than 0.5	Micrograms per Liter
Toluene	Less Than 0.5	Micrograms per Liter
1,2,3-Trichlorobenzene	Less Than 0.5	Micrograms per Liter
1,2,4-Trichlorobenzene	Less Than 0.5	Micrograms per Liter
1,1,1-Trichloroethane	Less Than 0.5	Micrograms per Liter
1,1,2-Trichloroethane	Less Than 0.5	Micrograms per Liter
Trichloroethene	Less Than 0.5	Micrograms per Liter
Trichlorofluoromethane	Less Than 1	Micrograms per Liter
1,2,3-Trichloropropane	Less Than 0.5	Micrograms per Liter

Sample: 6174-2
Project ID: BROC2NRW

Analysis/Analyte	Amount Found	Units
1,2,4-Trimethylbenzene	Less Than 0.5	Micrograms per Liter
1,3,5-Trimethylbenzene	Less Than 0.5	Micrograms per Liter
Vinyl Chloride	Less Than 0.5	Micrograms per Liter
m and/or p-Xylene	Less Than 0.5	Micrograms per Liter
o-Xylene	Less Than 0.5	Micrograms per Liter

SEP 24 2013

Ex. 6 PII

Subject: Your water well sample results

Dear [REDACTED]:

On August 22, 2013, I, as a representative of the U.S. Environmental Protection Agency collected water samples from your water well pursuant to your request. These samples were collected and analyzed to verify that your drinking water well has not been affected by contamination from the nearby Occidental facility. The next day I submitted the samples to the EPA's Regional Laboratory in Kansas City for analysis. The laboratory report dated September 17, 2013 showing the results is enclosed.

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Waste Remediation and Permitting Branch
Air and Waste Management Division

Enclosure: USEPA Region 7 Results of Sample Analysis

AWMD/WRAP/KNRP/BR:bft:09/24/13:H:AWMD/WRAP/Cores13/BR[REDACTED].doc

WRAP

WRAP

Roberts

Johnson

09/24/13

09/24/13

Ex. 6 PII



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 7

11201 Renner Boulevard
Lenexa, Kansas 66219

SEP 24 2013

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Air and Waste Management Division

Enclosure: USEPA Region 7 Results of Sample Analysis



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United States Environmental Protection Agency
Region 7
11201 Renner Blvd
Lenexa, KS 66219

09/17/2013

Results of Sample Analysis

Sample: 6174-1

Project ID: BROCN2NRW

These are the results from the analysis of water sample number 6174-1. This sample was collected on 08/22/2013 at the location described as: [REDACTED] [REDACTED]. If you have any questions about these results, contact Bradley Roberts at the above address or by calling 913-551-7279. Correspondence should refer to sample number 6174-1 for project: BROCN2NRW - Occidental Chemicals 2 Neighboring Residential well sampling.

Ex. 6 PII

Analysis/Analyte	Amount Found	Units
<u>Volatil Organic Compounds (VOCs) in Drinking Water by Gas Chromatography and Mass Selective Detection (GC/MS)</u>		
Acetone	Less Than 10	Micrograms per Liter
Benzene	Less Than 0.5	Micrograms per Liter
Bromobenzene	Less Than 0.5	Micrograms per Liter
Bromochloromethane	Less Than 0.5	Micrograms per Liter
Bromodichloromethane	Less Than 0.5	Micrograms per Liter
Bromoform	Less Than 0.5	Micrograms per Liter
Bromomethane	Less Than 1	Micrograms per Liter
2-Butanone	Less Than 5	Micrograms per Liter
n-Butylbenzene	Less Than 0.5	Micrograms per Liter
sec-Butylbenzene	Less Than 0.5	Micrograms per Liter
tert-Butylbenzene	Less Than 0.5	Micrograms per Liter
Carbon Disulfide	Less Than 0.5	Micrograms per Liter
Carbon Tetrachloride	Less Than 0.5	Micrograms per Liter
Chlorobenzene	Less Than 0.5	Micrograms per Liter
Chloroethane	Less Than 0.5	Micrograms per Liter
Chloroform	Less Than 0.5	Micrograms per Liter
Chloromethane	Less Than 1	Micrograms per Liter
2-Chlorotoluene	Less Than 0.5	Micrograms per Liter
4-Chlorotoluene	Less Than 0.5	Micrograms per Liter
1,2-Dibromo-3-Chloropropane	Less Than 1	Micrograms per Liter
Dibromochloromethane	Less Than 0.5	Micrograms per Liter
1,2-Dibromoethane	Less Than 0.5	Micrograms per Liter
Dibromomethane	Less Than 0.5	Micrograms per Liter

Analysis/Analyte	Amount Found	Units
1,2-Dichlorobenzene	Less Than 0.5	Micrograms per Liter
1,3-Dichlorobenzene	Less Than 0.5	Micrograms per Liter
1,4-Dichlorobenzene	Less Than 0.5	Micrograms per Liter
Dichlorodifluoromethane	Less Than 0.5	Micrograms per Liter
1,1-Dichloroethane	Less Than 0.5	Micrograms per Liter
1,2-Dichloroethane	Less Than 0.5	Micrograms per Liter
1,1-Dichloroethene	Less Than 0.5	Micrograms per Liter
cis-1,2-Dichloroethene	Less Than 0.5	Micrograms per Liter
trans-1,2-Dichloroethene	Less Than 0.5	Micrograms per Liter
1,2-Dichloropropane	Less Than 0.5	Micrograms per Liter
1,3-Dichloropropane	Less Than 0.5	Micrograms per Liter
2,2-Dichloropropane	Less Than 1	Micrograms per Liter
cis-1,3-Dichloropropene	Less Than 0.5	Micrograms per Liter
trans-1,3-Dichloropropene	Less Than 0.5	Micrograms per Liter
Ethyl Benzene	Less Than 0.5	Micrograms per Liter
Hexachlorobutadiene	Less Than 0.5	Micrograms per Liter
2-Hexanone	Less Than 5	Micrograms per Liter
Isopropylbenzene	Less Than 0.5	Micrograms per Liter
p-Isopropyltoluene	Less Than 0.5	Micrograms per Liter
Methylene Chloride	Less Than 5	Micrograms per Liter
4-Methyl-2-Pentanone	Less Than 5	Micrograms per Liter
Naphthalene	Less Than 1	Micrograms per Liter
n-Propylbenzene	Less Than 0.5	Micrograms per Liter
Styrene	Less Than 0.5	Micrograms per Liter
1,1,1,2-Tetrachloroethane	Less Than 0.5	Micrograms per Liter
1,1,2,2-Tetrachloroethane	Less Than 1	Micrograms per Liter
Tetrachloroethene	Less Than 0.5	Micrograms per Liter
Toluene	Less Than 0.5	Micrograms per Liter
1,2,3-Trichlorobenzene	Less Than 0.5	Micrograms per Liter
1,2,4-Trichlorobenzene	Less Than 0.5	Micrograms per Liter
1,1,1-Trichloroethane	Less Than 0.5	Micrograms per Liter
1,1,2-Trichloroethane	Less Than 0.5	Micrograms per Liter
Trichloroethene	Less Than 0.5	Micrograms per Liter
Trichlorofluoromethane	Less Than 1	Micrograms per Liter
1,2,3-Trichloropropane	Less Than 0.5	Micrograms per Liter

Sample: 6174-1
Project ID: BROC2NRW

Analysis/Analyte	Amount Found	Units
1,2,4-Trimethylbenzene	Less Than 0.5	Micrograms per Liter
1,3,5-Trimethylbenzene	Less Than 0.5	Micrograms per Liter
Vinyl Chloride	Less Than 0.5	Micrograms per Liter
m and/or p-Xylene	Less Than 0.5	Micrograms per Liter
o-Xylene	Less Than 0.5	Micrograms per Liter


**United States Environmental Protection Agency
Region VII
300 Minnesota Avenue
Kansas City, KS 66101**

Date: 9/17/13

Subject: Data Disposition/Sample Release for ASR #: 6174

Project ID: BROCC2NRW

Project Description: Occidental Chemicals 2 Neighboring Residential well sampling

From: Bradley Roberts 
AWMD/WRAP/KNRP

To: Alisha Claycamp
ENSV/CARB

I have received and reviewed the Transmittal of Sample Analysis Results for the above-referenced Analytical Services Request(ASR) and have indicated my findings below by checking one of the boxes for Data Disposition.

I understand all samples will be disposed upon receipt of this form, unless samples are requested to be held. If I do not return this form all samples will be disposed of on _____.

☐ "RELEASED" - Read-only to all Region 7 employees and contractors that have R7LIMS "Customer" account. All Samples may be disposed of upon receipt of this form if not requested to be held.

☒ "Project Manager Accessible" - Available on the LAN in R7LIMS for my use only. All Samples may be disposed of upon receipt of this form if not requested to be held.

☐ "Archived" - THIS DATA IS OF A SENSITIVE NATURE. Any future reports must be requested through the laboratory. All samples may be disposed of upon receipt of the form if not requested to be held.

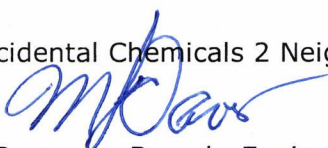
☐ Hold Samples - I have determined that the samples need to be held until _____, after which time they will be disposed of in accordance with applicable regulations.
The reason for the hold is:

☐ Samples are associated with a legal proceeding.

☐ Question/Concern with data - possible reanalysis requested.

☐ Other: _____

**United States Environmental Protection Agency
Region 7
300 Minnesota Avenue
Kansas City, KS 66101**

Date: SEP 17 2013
Subject: Transmittal of Sample Analysis Results for ASR #: 6174
Project ID: BROCC2NRW
Project Description: Occidental Chemicals 2 Neighboring Residential well sampling
From: Michael F. Davis, Chief 
Chemical Analysis and Response Branch, Environmental Services Division
To: Bradley Roberts
AWMD/WRAP/KNRP

Enclosed are the analytical data for the above-referenced Analytical Services Request (ASR) and Project. The Regional Laboratory has reviewed and verified the results in accordance with procedures described in our Quality Manual (QM). In addition to all of the analytical results, this transmittal contains pertinent information that may have influenced the reported results and documents any deviations from the established requirements of the QM.

Please contact us within 14 days of receipt of this package if you determine there is a need for any changes. Please complete the enclosed Customer Satisfaction Survey and Data Disposition/Sample Release memo for this ASR as soon as possible. The process of disposing of the samples for this ASR will be initiated 30 days from the date of this transmittal unless an alternate release date is specified on the Data Disposition/Sample Release memo.

If you have any questions or concerns relating to this data package, contact our customer service line at 913-551-5295.

Enclosures

cc: Analytical Data File.

Project Manager: Bradley Roberts**Org:** AWMD/WRAP/
KNRP**Phone:** 913-557-7279**Project ID:** BROCC2NRW**Project Desc:** Occidental Chemicals 2 Neighboring Residential well sampling**Location:** Haysville**State:** Kansas**Program:** RCRA Corrective
Action**Purpose:** Site Characterization**GPRA PRC:** 303D99EPA response to direct request from neighboring residents.
RCRA ID: KSD007482029.**Explanation of Codes, Units and Qualifiers used on this report****Sample QC Codes:** QC Codes identify the type of
sample for quality control purpose.**Units:** Specific units in which results are
reported.

___ = Field Sample

ug/L = Micrograms per Liter

Data Qualifiers: Specific codes used in conjunction with data values to provide additional information
on the quality of reported results, or used to explain the absence of a specific value.

(Blank)= Values have been reviewed and found acceptable for use.

U = The analyte was not detected at or above the reporting limit.

UJ = The analyte was not detected at or above the reporting limit. The reporting
limit is an estimate.

ASR Number: 6174

Sample Information Summary

09/17/2013

Project ID: BROCC2NRW

Project Desc: Occidental Chemicals 2 Neighboring Residential well
sampling

Sample No	QC Code	Matrix	Location	Description	External Sample No	Start Date	Start Time	End Date	End Time	Receipt Date
1 -	---	Water				08/22/2013	10:55	08/22/2013	11:00	08/23/2013
2 -	---	Water				08/22/2013	12:55	08/22/2013	13:00	08/23/2013

Ex. 6 PII

ASR Number: 6174

RLAB Approved Analysis Comments

09/17/2013

Project ID: BROCC2NRW

Project Desc Occidental Chemicals 2 Neighboring Residential well
sampling

Analysis Comments About Results For This Analysis

1 VOCs in Drinking Water by GC/MS

Lab: RASP Contract Lab (Out-Source)

Method: Similar to EPA Region 7 RLAB Method 3230.9E (see comments)

Samples: 1-__ 2-__

Comments:

The MS/MSD analyses were performed on sample 6174-1. The MSD recovery of 66% for 4-methyl -2-pentanone and the MS/MSD recoveries of 67% / 57% for 2-hexanone were below the lower control limit of 70%. 4-methyl-2-pentanone and 2-hexanone were UJ-coded in sample 6174-1. These compounds were not found in the sample at or above the reporting limit, however, the reporting limit is an estimate (UJ-coded) due to low recovery of these compounds in the laboratory matrix spike. The actual reporting limit for these compounds may be higher than the reported value.

Project ID: BROCC2NRW

Project Desc: Occidental Chemicals 2 Neighboring Residential well sampling

Analysis/ Analyte	Units	1-__	2-__
1 VOCs in Drinking Water by GC/MS			
Acetone	ug/L	10 U	10 U
Benzene	ug/L	0.5 U	0.5 U
Bromobenzene	ug/L	0.5 U	0.5 U
Bromochloromethane	ug/L	0.5 U	0.5 U
Bromodichloromethane	ug/L	0.5 U	0.5 U
Bromoform	ug/L	0.5 U	0.5 U
Bromomethane	ug/L	1 U	1 U
2-Butanone	ug/L	5 U	5 U
n-Butylbenzene	ug/L	0.5 U	0.5 U
sec-Butylbenzene	ug/L	0.5 U	0.5 U
tert-Butylbenzene	ug/L	0.5 U	0.5 U
Carbon Disulfide	ug/L	0.5 U	0.5 U
Carbon Tetrachloride	ug/L	0.5 U	0.5 U
Chlorobenzene	ug/L	0.5 U	0.5 U
Chloroethane	ug/L	0.5 U	0.5 U
Chloroform	ug/L	0.5 U	0.5 U
Chloromethane	ug/L	1 U	1 U
2-Chlorotoluene	ug/L	0.5 U	0.5 U
4-Chlorotoluene	ug/L	0.5 U	0.5 U
1,2-Dibromo-3-Chloropropane	ug/L	1 U	1 U
Dibromochloromethane	ug/L	0.5 U	0.5 U
1,2-Dibromoethane	ug/L	0.5 U	0.5 U
Dibromomethane	ug/L	0.5 U	0.5 U
1,2-Dichlorobenzene	ug/L	0.5 U	0.5 U
1,3-Dichlorobenzene	ug/L	0.5 U	0.5 U
1,4-Dichlorobenzene	ug/L	0.5 U	0.5 U
Dichlorodifluoromethane	ug/L	0.5 U	0.5 U
1,1-Dichloroethane	ug/L	0.5 U	0.5 U
1,2-Dichloroethane	ug/L	0.5 U	0.5 U
1,1-Dichloroethene	ug/L	0.5 U	0.5 U
cis-1,2-Dichloroethene	ug/L	0.5 U	0.5 U
trans-1,2-Dichloroethene	ug/L	0.5 U	0.5 U
1,2-Dichloropropane	ug/L	0.5 U	0.5 U
1,3-Dichloropropane	ug/L	0.5 U	0.5 U
2,2-Dichloropropane	ug/L	1 U	1 U
cis-1,3-Dichloropropene	ug/L	0.5 U	0.5 U
trans-1,3-Dichloropropene	ug/L	0.5 U	0.5 U
Ethyl Benzene	ug/L	0.5 U	0.5 U
Hexachlorobutadiene	ug/L	0.5 U	0.5 U
2-Hexanone	ug/L	5 U	5 U
Isopropylbenzene	ug/L	0.5 U	0.5 U
p-Isopropyltoluene	ug/L	0.5 U	0.5 U
Methylene Chloride	ug/L	5 U	5 U
4-Methyl-2-Pentanone	ug/L	5 U	5 U
Naphthalene	ug/L	1 U	1 U

ASR Number: 6174

RLAB Approved Sample Analysis Results

09/17/2013

Project ID: BROCC2NRW

Project Desc: Occidental Chemicals 2 Neighboring Residential well sampling

Analysis/ Analyte	Units	1-__	2-__
n-Propylbenzene	ug/L	0.5 U	0.5 U
Styrene	ug/L	0.5 U	0.5 U
1,1,1,2-Tetrachloroethane	ug/L	0.5 U	0.5 U
1,1,2,2-Tetrachloroethane	ug/L	1 U	1 U
Tetrachloroethene	ug/L	0.5 U	0.5 U
Toluene	ug/L	0.5 U	0.5 U
1,2,3-Trichlorobenzene	ug/L	0.5 U	0.5 U
1,2,4-Trichlorobenzene	ug/L	0.5 U	0.5 U
1,1,1-Trichloroethane	ug/L	0.5 U	0.5 U
1,1,2-Trichloroethane	ug/L	0.5 U	0.5 U
Trichloroethene	ug/L	0.5 U	0.5 U
Trichlorofluoromethane	ug/L	1 U	1 U
1,2,3-Trichloropropane	ug/L	0.5 U	0.5 U
1,2,4-Trimethylbenzene	ug/L	0.5 U	0.5 U
1,3,5-Trimethylbenzene	ug/L	0.5 U	0.5 U
Vinyl Chloride	ug/L	0.5 U	0.5 U
m and/or p-Xylene	ug/L	0.5 U	0.5 U
o-Xylene	ug/L	0.5 U	0.5 U

**CHAIN OF CUSTODY RECORD
ENVIRONMENTAL PROTECTION AGENCY REGION VII**

ACTIVITY LEADER (Print) <u>Brad Roberts</u>	NAME OF SURVEY OR ACTIVITY <u>6174</u>	DATE OF COLLECTION <u>22</u> / <u>8</u> / <u>13</u> DAY MONTH YEAR	SHEET <u>1</u> of <u>1</u>
--	---	--	-------------------------------

CONTENTS OF SHIPMENT

SAMPLE NUMBER	TYPE OF CONTAINERS <u>VDA set</u>				VOA SET 3 VIALS EA	SAMPLED MEDIA					RECEIVING LABORATORY REMARKS/OTHER INFORMATION (condition of samples upon receipt, other sample numbers, etc.)
	CUBITAINER	BOTTLE	BOTTLE	BOTTLE		water	soil	sediment	dust	other	
	NUMBERS OF CONTAINERS PER SAMPLE NUMBER										
<u>6174-1</u>					<u>3</u>	<u>X</u>					
<u>↓ 2</u>					<u>1</u>	<u>X</u>					
Complete											

*Chr. Temp. Rec'd.
bet. 0-1°C*

DESCRIPTION OF SHIPMENT <u>4</u> PIECE(S) CONSISTING OF _____ BOX(ES) <u>1</u> ICE CHEST(S); OTHER _____	MODE OF SHIPMENT <u>8/23/13</u> _____ COMMERCIAL CARRIER: _____ _____ COURIER <input checked="" type="checkbox"/> SAMPLER CONVEYED (SHIPPING DOCUMENT NUMBER) _____
--	---

PERSONNEL CUSTODY RECORD			
RELINQUISHED BY (SAMPLER) <u>Brad Roberts</u>	DATE <u>8/23/13</u>	TIME <u>9:20A</u>	RECEIVED BY <u>Nicole Robla</u>
<input checked="" type="checkbox"/> SEALED <input type="checkbox"/> UNSEALED			<input checked="" type="checkbox"/> SEALED <input type="checkbox"/> UNSEALED
REASON FOR CHANGE OF CUSTODY <u>Analysis</u>			

Sample Collection Field Sheet

US EPA Region 7
Kansas City, KS

ASR Number: 6174 Sample Number: 1 QC Code: ____ Matrix: Water Tag ID: 6174-1-__

Project ID: BROCC2NRW Project Manager: Bradley Roberts
Project Desc: Occidental Chemicals 2 Neighboring Residential well sampling
City: [REDACTED] State: Kansas
Program: RCRA Corrective Action Ex. 6 PII

Location Desc: [REDACTED] Ex. 6 PII

Storet ID: _____ External Sample Number: _____

Expected Conc: _____ (or Circle One: Low Medium High) Date Time(24 hr)

Latitude: _____

Sample Collection: Start: 8/22/13 10:55

Longitude: _____

End: 8/22/13 11:00

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
Q-8 - 40mL VOA vial	4 Deg C, HCL to pH<2	14 Days	1 VOCs in Drinking Water by GC/MS

Sample Comments:

8/23/13 (N/A)

Sample Collected By: BR/EPA

Sample Collection Field Sheet

US EPA Region 7
Kansas City, KS

ASR Number: 6174 Sample Number: 2 QC Code: ____ Matrix: Water Tag ID: 6174-2-____

Project ID: BROC2NRW Project Manager: Bradley Roberts
Project Desc: Occidental Chemicals 2 Neighboring Residential well sampling
City: [REDACTED] State: Kansas
Program: RCRA Corrective Action Ex. 6 PII

Location Desc: [REDACTED] Ex. 6 PII

Storet ID: _____ External Sample Number: _____

Expected Conc: _____ (or Circle One: Low Medium High) Date Time(24 hr)

Latitude: _____ Sample Collection: Start: 8/22/13 12:55

Longitude: _____ End: 8/22/13 13:00

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
3 - 40mL VOA vial	4 Deg C, HCL to pH<2	14 Days	1 VOCs in Drinking Water by GC/MS

Sample Comments:

(N/A)

Sample Collected By: BR/EPA

US EPA Region 7 Analytical Services Request (ASR)

07/15/2013 13:35

Project ID: BROCC2NRW

ASR Number: 6174

Projected Delivery Date: 08/15/2013

Project Desc: Occidental Chemicals 2 Neighboring Residential well sampling

City: [REDACTED]

Ex. 6 PII

State: Kansas

Program: RCRA Corrective Action

GPRA PRC: 303D99

Project Manager: Bradley Roberts

Organization: AWMD/WRAP/KNRP

Phone Number: 913-557-7279

Contact: Bradley Roberts

Organization: AWMD/WRAP/KNRP

Contact Phone: 913-557-7279

ASR Purpose: Site Characterization

Comments: EPA response to direct request from neighboring residents.
RCRA ID: KSD007482029.

Is this activity currently or potentially a criminal investigation? No

Has a QAPP for the requested services been approved? No

QAPP Log Number and/or QA Document Number:

For health, safety and environmental compliance are any samples expected to contain:

Dioxin > 1ppb: Unlikely

RCRA Listed Wastes: Unlikely

Toxic/Hazardous Chemicals >1000ppm: Unlikely

No. of Samples	Req No	Analysis Name	CNS List	Conc of Interest	Expected Conc	Lab
3	1	VOCs in Drinking Water by GC/MS		524.2/Low	Low	RASP

Special Analytical Requirements or Comments:

30-Day TAT from the receipt of the last sample. All samples will be delivered in 1 batch on or around Thursday (8/15). No weekend deliveries and any or all samples delivered on Friday (8/16) must be delivered before Noon, before the 3rd day of sample collection and with plenty of holding time left for any analyses after the weekend. Field sampler must provide extra (triple) volume on 1 field sample for DW VOA QC (MS/MSD) purposes. CARB will provide extra tags and containers for this pupose. All samples must be collected, labeled and delivered according to all appropriate CARB SOPs. Written instructions will be provided with the FS/tags.

Date Submitted: 07/15/2013

By: Nicole Roblez

ASR Status: Accepted

Date Accepted: 07/15/2013

By: Nicole Roblez

RLAB Turn Around Time: 30 Days

Date Transmitted:

By:

ANOP Turn Around Time: 23 Days

Sampling Supplies and QC/PE Samples

07/15/2013 13:35

ASR Number: 6174

Project ID: BROCC2NRW

Project Desc: Occidental Chemicals 2 Neighboring Residential well sampling

Project Manager: Bradley Roberts

Organization: AWMD/WRAP/KNRP

Phone Number: 913-557-7279

Contact: Bradley Roberts

Organization: AWMD/WRAP/KNRP

Contact Phone: 913-557-7279

Supply Pickup Date: 08/08/2013 RLAB Will supply Field sheets and Tags

Supply Comments:

Field sheets, tags, acids, QC sample and below noted sampling supplies will need to be ready in 1 cooler for a pick-up at the STC on or after Thursday (8/8) am. No sampling supplies will be needed from the KCMO location.

IAV/DD/HDF/SP/ACC/MB/XS/DAD/KTJ: PM/Field sampler will need 1 bottle of ascorbic acid (as well as 1 bottle of sod. thiosulfate solution as noted below) to preserve DW VOAs if chlorine is present and DW VOA Trip Blank sample ready in the back dock refig. for a pickup on or around Thursday (8/8).

Qty	Sample Containers	Qty	Equipment
5	40-mL VOA Vial (3 in cubi)	1	Ice Chest (w/ plastic bag)
Qty	Preservatives	Qty	Misc. Supplies
1	HCl (1:1) Dropper Bottle	2	Chain-of-Custody Forms (each)
1	Sodium thiosulfate solution	1	Clear Wide Tape (by roll)
		3	Charcoal Thimbles
Qty	QC Samples		
1	Water Trip Blank, LDL/DW VOA (3 vials)		

Performance Evaluation Samples

Qty	Matrix	Analytes	Concentration Range
(None)			

Shawitz - 7192

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 6174 **Sample Number:** 1 **QC Code:** **Matrix:** Water **Tag ID:** 6174-1-

Project ID: BROCC2NRW **Project Manager:** Bradley Roberts
Project Desc: Occidental Chemicals 2 Neighboring Residential well sampling
City: **State:** Kansas
Program: RCRA Corrective Action Ex. 6 PII

Location Desc:

Storet ID:

External Sample Number:

Expected Conc:

(or Circle One: Low Medium High)

Date

Time(24 hr)

Latitude:

Sample Collection: Start: 8/22/13

10:55

Longitude:

End: 8/22/13

11:00

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
3 - 40mL VOA vial	4 Deg C, HCL to pH<2	14 Days	1 VOCs in Drinking Water by GC/MS

Sample Comments:

(N/A)

Sample Collected By: BR/EPA

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 6174 **Sample Number:** 2 **QC Code:** ____ **Matrix:** Water **Tag ID:** 6174-2-____

Project ID: BROCC2NRW **Project Manager:** Bradley Roberts
Project Desc: Occidental Chemicals 2 Neighboring Residential well sampling
City: [REDACTED] **State:** Kansas
Program: RCRA Corrective Action Ex. 6 PII

Location Desc: [REDACTED]

Storet ID: _____ **External Sample Number:** _____

Expected Conc: _____ (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: _____ **Sample Collection: Start:** 8/22/13 12:55

Longitude: _____ **End:** 8/22/13 13:00

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
3 - 40mL VOA vial	4 Deg C, HCL to pH<2	14 Days	1 VOCs in Drinking Water by GC/MS

Sample Comments:

(N/A)

Sample Collected By: BR/EPA

US EPA Region 7 Superfund Division

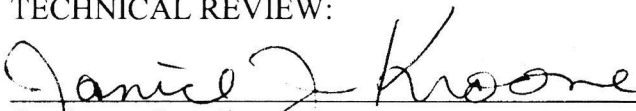
Standard Operating Procedure
for
Groundwater Sample Collection

4334.15A

January 13, 2000


by Shirley L. Williams

TECHNICAL REVIEW:

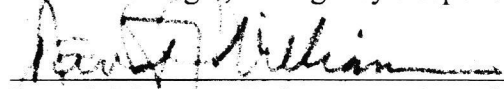

On-Scene Coordinator
Emergency Response and Removal Branch

Date: 21 Feb 2000

APPROVED:


Branch Manager, Emergency Response and Removal Branch

Date: 2-22-00


Branch Manager, Enforcement / Fund-Lead Removal Branch

Date: 2-22-2000


Superfund Quality Assurance Coordinator
Site Assessment and Cost Recovery Branch

Date: 3-16-00

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1.0 PURPOSE

The purpose of this Standard Operating Procedures (SOP) is to establish uniform procedures for collecting representative samples of groundwater sources.

2.0 APPLICATION

The procedures outlined in this SOP are applicable to all personnel of the Superfund Division (SUPR) and their contractors involved in the collection of groundwater samples in support of Region 7 programs.

3.0 GENERAL CONSIDERATIONS

A. Since a comprehensive groundwater monitoring project may require the accumulation of extensive hydrogeologic information and consideration of a multitude of factors that affect subsurface water quality and quantity, the design of such a complex project is beyond the scope of this SOP. The development of a Quality Assurance Project Plan (QAPP) will have to address these factors on a case-by-case basis.

B. The procedures contained in this SOP will be restricted to the actual collection of samples and will not address in detail such topics as placement of wells, installation of wells, hydraulic gradient, subsurface and surface soil types and features, topography, land use, drainage patterns, etc.

4.0 SELECTION OF SAMPLING LOCATIONS

A. The site specific Addendum or QAPP for a specific activity or investigation should provide detailed information as to sampling locations.

1. As a general rule, a minimum of three wells are normally required to accurately assess subsurface conditions: one in the up gradient portion of the area of interest, one in the middle portion, and one in the down gradient portion. In some cases, however, a system of wells may be required to define the subsurface conditions, especially in establishing the depth to the shallow groundwater aquifer and the direction of the groundwater flow. Site conditions and the site specific Addendum or QAPP will determine the total number of wells required.

2. Existing wells should be utilized when possible and practicable to meet the needs of the project. The state Underground Storage Tank (UST) program should be contacted to see if any monitoring wells may exist that could provide valuable well placement information (e.e., geology, etc.) or data.

3. The installation of monitoring wells and specific siting of these wells should be addressed in the site specific quality assurance project plan.

B. Sampling location guidelines applicable to all groundwater sampling activities cannot feasibly be established since each sampling activity has unique characteristics based upon its hydrogeological setting. A systematic investigation of an area is normally required to determine the optimum

sampling locations. A review of existing information and investigation of surface and subsurface conditions are all correlated to determine the necessity, extent, location, and depth of groundwater sampling points required to meet the QAPP objectives.

- C. When selecting sampling points the following factors should be considered:
 - 1. Movement of groundwater from high to low gradient stagnant areas.
 - 2. Groundwater movement induced by sampling and production wells.
 - 3. Inflow-outflow from surface water.
 - 4. The number and horizontal placement of wells should be governed by the hydrogeologic conditions.
 - 5. The vertical placement of the sampling point should be governed by locating the withdrawal point at a representative depth to average concentration gradients or at a depth commensurate with the project objectives. The depth should be set so that seasonal fluctuations in the water table do not affect sample collection.
- D. Small springs should be sampled in unconsolidated deposits by driving a well point or slotted pipe to a depth of 1 meter or less into the ground adjacent to the spring.
- E. Large springs should be sampled in consolidated rock.

5.0 TYPE OF SAMPLES

- A. Normally, only grab samples are manually collected of groundwater, because the movement of water is slow and the water quality does not normally exhibit sudden or drastic changes.
- B. The site specific addendum or QAPP should identify the type of samples to collect.
- C. The specific parameter to be analyzed may dictate that grab samples be collected.

6.0 PARAMETERS TO BE ANALYZED

- A. The site specific addendum or QAPP should specify the parameters to be analyzed.
- B. Some common parameters that indicate overall water quality and quantities of an area, but not specific pollution problems, for planning purposes are: pH, oxidation reduction potential, temperature, total dissolved solids, nitrate, chloride, water level, and Total Organic Carbon (TOC).

7.0 METHOD OF SAMPLING

- A. Prior to any groundwater sampling, all wells should be adequately purged to eliminate all fine material from the area of the well screen, if applicable, and to clear the well of stagnant water.

1. As a general rule, the well should be purged until three to five times the volume of water in the well has been removed. As an alternate procedure, the well can be purged until the conductivity, pH, and temperature stabilize.

2. If a well is pumped dry during purging, it should be allowed to recharge before sampling.

3. There are various methods available for purging wells: Suction lift pumping (pitcher, centrifugal, roller, piston, or peristaltic pumps), pressure ejection pumping, submersible pumping, and bailing.

B. Samples may be collected by transporting the water to the surface in a container or transporting the water through a closed conduit and discharging at the surface.

1. A depth integrated or point sampler may be utilized to collect samples in a container.

a. A depth integrated sampler is a container equipped with a holding and submerging mechanism which collects water throughout the vertical profile. Other depth integrating samplers known as bailers are lowered through the water and are filled through the bottom inlet which contains a check valve for retaining water when retrieved.

b. A point sampler is used to collect a sample at a specific depth.

* Special note. When collecting samples for volatile organic analysis (VOAs), care must be taken to assure the tubing used does not interfere with the analysis (i.e., add contamination or degrade analytes of concern)

2. In a closed conduit transport system, a pump, compressed gas or a vacuum is used to transport water to the surface.

a. Vacuum systems should not be used for collecting volatile organic samples.

b. Pressure or vacuum lysimeters may be utilized to collect samples from the vadose zone; i.e., the zone above the water table.

c. Pressure or air lift piezometers installed in boring can also be used to collect samples in the vadose zone.

C. When sampling wells with in-place plumbing, samples should be collected following purging from a cold water tap as near to the well as possible, and before any treatment system (i.e., chlorination, fluoridation, water softener, etc.) if possible. Samples should be collected directly into the appropriate sample containers.

8.0 GROUNDWATER LEVEL MEASUREMENT

A. The measurement of the groundwater in the wells is conducted in conjunction with groundwater sampling. The data from such measurements is needed to determine the "free" water surface and can be used to establish groundwater gradients and ultimately, the direction of groundwater flow.

B. All groundwater level measurements should be made in reference to an established point (usually the top of the casing) on the well casing and be documented in the field records.

C. All measurements should be accomplished prior to purging the well.

D. Some specific techniques for measuring groundwater levels are as follows:

1. Popper or Bell Sounder. The bell or cup shaped weight that is hollow on the bottom is attached to a measuring tape and lowered into the well. A "plopping" or "popping" sound is heard when the weight strikes the surface of the water. A measurement is made by lifting and lowering the weight in short strokes and reading the tape when the weight barely strikes the water. The length of the weight must be subtracted from the reading if it is not included in the length of the tape.

2. Weighted Tape. This method is the same as (1) except any type of weight such as a padlock or lead sinker is fastened to the end of a tape.

3. Chalked Tape. The end (lower 2 to 5 ft) of a steel measuring tape is coated on either side with carpenter's chalk, ordinary blackboard chalk, a dry (non-contaminated) soil, or paste that changes color when it gets wet. The end is weighted and lowered into the center of the well until a hollow "plopping" sound is heard when the weight strikes the water. The tape is lowered very slowly for at least another six inches, preferably to an even foot mark. The tape is carefully withdrawn from the well and the water depth is determined by subtracting the wetted length of tape plus the weight from the total measurement.

4. Electric Water Level Indicator or Sounder. This device consisting of a spool of small diameter cable with a probe attached to the end. A meter, light, and/or buzzer attached to the spool is activated when the sounder probe comes in contact with the water and completes the electrical circuit. The probe is usually required to be submerged to about 1 3/4 inches to fully activate the meter or other indicator.

5. Other Devices. There are commercially available water level indicators and recorders. These devices are primarily used for closed systems or permanent monitoring wells.

C. Whenever groundwater measurements are made, caution should be exercised to prevent inadvertent contamination of the well or cross-contamination between wells. The measuring device that comes in contact with the water should be adequately cleaned prior to and between uses.

9.0 INVESTIGATION DERIVED WASTEWATER

A. When sampling ground water, the Project Manager must ensure that contaminated water is handled in a manner that does not cause further contamination via runoff into a body of water,

sensitive area, or possibly into private drinking water wells.

B. It may be appropriate to collect the purge water and run it through a carbon filter, or other treatment mechanism, prior to discharge. A public owned treatment works (POTW) may be used to dispose of this water, or another method may be needed to ensure that the contaminated water is handled appropriately.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 7

11201 Renner Boulevard
Lenexa, Kansas 66219

JUL 24 2013

MEMORANDUM

SUBJECT: Quality Assurance Project Plan for Occidental Chemical Corporation; Wichita, Kansas -
Approved with Comment

FROM: Diane Harris
Regional Quality Assurance Manager
ENSV/IO

TO: Brad Roberts
EPA Project Manager
AWMD/RCAP

The review of the subject document prepared by EPA, dated July 2013, has been completed according to *"EPA Requirements for Quality Assurance Project Plans for Environmental Data Operations,"* EPA QA/R-5 March 2001.

Based on the comments below, the document is approved with comment. Although the document satisfactorily addresses most of the key issues, minor issues were noted. These issues do not have an impact on the approval of the document, but are noteworthy of pointing out for the record.

General Comments

1. §2.10 Data Management. R7 SOP numbers (e.g., 2410.01F) should be listed without the letter because the letter changes after each revision. This change should be corrected throughout the QAPP.
2. §1.7 Documentation and Records. The QAPP indicates that site maps will be utilized but they are not attached.

If you have any questions, please contact me at x7258, or the lead reviewer, Gabrielle Thompson at x7569.

R7QAO Document Number: 2013201

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JUL 25 2013

AWMD/WRAP-KNRP



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Region 7 Amendment for Quality Assurance Project Plan
Facility Related Investigative Activities RCRA Corrective Action Program
Occidental Chemical Corporation, Wichita KS EPA ID No. KSD007482029,
which was approved by EPA 6-10-2009

Project Information:

Revision: 00

Site Name: Occidental Chemicals

City: Wichita

State: Kansas

U.S. Environmental Protection Agency (EPA) Project
Manager: Brad Roberts

Approved By:

Approval Date:

EPA Project Manager:

EPA Project Manager:



7-17-13

EPA Regional Quality Assurance (QA) Manager:

EPA RQAM:



07/24/2013

1.0 Project Management:

1.1 Distribution List

EPA Region 7 Brad Roberts, PM
 Diane Harris, RQAM

1.2 Project/Task Organization

Brad Roberts, EPA Region 7 RCRA Corrective Action Branch, will serve as the project manager for the activities described in this Amendment to the Occidental Chemicals Corp. Quality Assurance Project Plan (QAPP), and will be responsible for distribution of the QAPP Amendment to appropriate project members below.

Diane Harris, RQAM, will provide review and approval of this QAPP Amendment.

Nicole Roblez, EPA regional lab, will receive and process the Analytical Services Request (ASR) by the EPA PM for the samples to be collected and assign an EPA activity number. Other regional lab duties include: provide sample containers and shipping container; receive, analyze, and dispose of samples; ensure the chain of custody of the samples is valid and continued; validate laboratory data; report laboratory-validated data to EPA PM.

RECEIVED
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JUL 16 2013

Region 7 Amendment for Quality Assurance Project Plan
Facility Related Investigative Activities RCRA Corrective Action Program
Occidental Chemical Corporation, Wichita KS EPA ID No. KSD007482029,
which was approved by EPA 6-10-2009

1.3 Problem Definition/Background:

Description: This QAPP Amendment modifies specific activities described herein related to residential well sampling by EPA of two neighbor's wells adjacent to the Occidental Chemicals facility.

Occidental Chemicals owns and operates a chloroalkali and chlorosolvents manufacturing facility in Wichita, Kansas. The raw material used in Occidental Chemicals' chemical processing is salt brine. Occidental Chemicals currently manufactures chlorine, hydrogen, sodium hydroxide, hydrochloric acid, pentachlorophenol, methyl chloride, methylene chloride, chloroform, carbon tetrachloride, and perchloroethylene at the Wichita facility. In addition, hexachlorocyclohexane (benzene hexachloride, or Lindane) was produced from 1952 to 1962. The waste streams produced by Occidental Chemicals are composed mainly of organic hydrocarbons. These include hexachlorobenzene, hexachloroethane, hexachlorobutadiene, phenols, and methylene chloride. Occidental Chemicals has operated an on-site incinerator and currently operates a deep injection well for disposal of hazardous waste.

The Occidental Chemicals facility has groundwater contamination emanating from their facility in both the shallow/medium and deep aquifers and they operate an ongoing corrective action program to provide hydraulic control.

Two neighbors of the facility contacted EPA to request that samples be collected and analyzed from their drinking water wells. EPA requires Occidental Chemicals to collect samples from one of their wells, but that neighbor is distrusting of the results provided by Occidental Chemicals and states that sampling is not performed during peak irrigation season when they suspect they are most likely to be impacted due to induced flow within the aquifer caused by nearby irrigation wells.

1.4 Project/Task Description:

The EPA project manager will collect water well samples from two drinking water wells at two residences neighboring the Occidental facility. Sampling activities will be conducted in August 2013, pending access to the residential wells and EPA approval of this QAPP Addendum. Sample analytical results will be compared to EPA maximum contaminant levels (MCLs) for drinking water. Results exceeding MCLs will be considered indicators that further evaluation of the nature, extent, and potential risks associated with site-related contamination is warranted. Confirmation sampling and timely provision of alternate water supply or water treatment to affected residences may be required of the facility.

1.5 Quality Objectives and Criteria for Measurement Data:

See Table 1.

1.6 Special Training/Certification Requirements:

Sampling personnel are required to have completed a basic 40-hour health and safety (Hazardous Waste Operations and Emergency Response) training course and annual refreshers. Familiarization with residential well sampling equipment and procedures is also necessary.

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1.7 Documentation and Records:

- | | | | | |
|--|---|--|--|---|
| <input checked="" type="checkbox"/> Field Sheets | <input checked="" type="checkbox"/> Site Log | <input checked="" type="checkbox"/> Photos | <input checked="" type="checkbox"/> Video | <input checked="" type="checkbox"/> Site Maps |
| <input checked="" type="checkbox"/> Chain of Custody | <input checked="" type="checkbox"/> Trip Report | <input checked="" type="checkbox"/> Report | <input checked="" type="checkbox"/> Health & Safety Plan | |
- ☒ Sample documentation will follow EPA Region 7 Standard Operating Procedure (SOP) 2420.5E, Identification, Documentation and Tracking of Samples.
- ☒ Other: Analytical information will be handled according to procedures identified in Table 1.
- ☒ Other: Well owner questionnaires

All project documentation will be maintained in the Occidental Chemicals project file in the Region 7 Records Center in accordance with RCRA records retention policies. Field activity reporting requirements are outlined in Section 3.2.

2.0 Measurement and Data Acquisition:

2.1 Sampling Process Design:

The purpose of the sampling investigation is to evaluate whether environmental contamination at the Occidental Chemical facility has affected water quality of these two domestic drinking water wells in the vicinity. Planned activities are limited to collection of water well samples from two domestic water wells neighboring the Occidental Chemicals facility (see Appendix A, and Table 3):

- RW-1: 6725 W 71st St. South, Hayesville, KS 67060
- RW-2: 6842 S. Hoover, Hayesville, KS 67060

The residents at these locations requested that EPA collect samples from their wells and their requests are reasonable based on their proximities to the Occidental Chemicals facility and potential for groundwater migration relative to regional ground water flow. The EPA Project manager will collect samples for VOC analysis only. Prior to sampling, the EPA Project Manager will document information available from the residents about their drinking water wells using the interview form included as Appendix A. If possible, a photo of the water well surface completion will be taken. Samples will be collected from a cold water spigot as close as possible to the well head and before any hose, aerator, water softener, or other treatment system. If a sampling location prior to a water treatment device cannot be located, the sampling will proceed and the sampler will describe in detail the type of treatment device(s) found. Any aerator or hose attachment will be removed from the sampling tap prior to purging and sample collection. The water line will be purged for approximately 5 to 10 minutes, until temperature has stabilized. Every effort will be made to maintain an even-flowing water stream at moderate pressure without splashing throughout the purging and sampling.

The EPA Region 7 laboratory will analyze the samples for volatile organic compounds (VOCs) using drinking water methods. Analyses will be completed with a standard turnaround time. Quality control samples will include a trip blank and a matrix spike/matrix spike duplicate. Tables 2 and 3 summarize the sample numbers, matrices, analyses, and approximate locations proposed for collection under this QAPP Amendment.

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2.2 Sample Methods Requirements:

Collection of original and QA/Quality Control (QC) water well samples will be in accordance with Occidental Chemical's Sampling & Analysis Plan last updated on 3-13-12. Table 1 provides a summary of DQOs and relevant sample handling SOPs. Table 2 provides a summary of original and QA/QC samples to be collected and relevant sample collection SOPs. Table 4 provides sample container, preservation, and holding time information.

2.3 Sample Handling and Custody Requirements:

See Table 1.

2.4 Analytical Methods Requirements:

Original and QA/QC water well samples will be analyzed by the EPA Region 7 laboratory using the guidelines and target reporting limits specified in EPA Regional Laboratory Branch (RLAB) SOPs. A standard 30-day turnaround time will be requested for all samples. Proposed analytes, methods, RLAB typical reporting limits, and MCLs are provided in Table 5.

2.5 Quality Control Requirements:

Table 1 provides a summary of DQOs and relevant sample handling SOPs. Table 2 provides a summary of original and QA/QC samples to be collected and relevant sample collection SOPs. Relevant QA/QC samples for this sampling investigation include a trip blank, and MS/MSD samples. Because no reusable equipment will be used to collect the samples, no equipment rinsate blanks will be necessary. No field duplicates will be collected. The trip blank will be submitted for VOC analysis only. Acceptance of all laboratory QA/QC samples will be evaluated in accordance with the analytical method; EPA Region 7 SOPs 2430.12F, *Regional Laboratory QC Policy*; and *Qm-d, EPA Region 7 Laboratory Quality Manual*. The acceptance of all field QA/QC samples requires that blanks be free of contaminants.

2.6 Instrument/Equipment Testing, Inspection, and Maintenance Requirements:

The EPA project manager will not use field instrumentation. Verification of purging will be performed by letting the water run for 5 to 10 minutes prior to collecting the sample in order that the water being sampled has not been allowed to reside motionless in the distribution piping or any tanks. EPA will test, inspect, and maintain analytical instrumentation at the Region 7 laboratory in accordance with Region 7 analytical SOPs and manufacturers' recommendations.

2.7 Instrument Calibration and Frequency:

As the EPA Project Manager will not be using field instrumentation, calibration of field instruments will not be performed. Calibration frequency of analytical instrumentation at the Region 7 laboratory will be performed in accordance with Region 7 analytical SOPs and manufacturers' recommendations.

2.8 Inspection/Acceptance Requirements for Supplies and Consumables:

Certificates of analysis are provided with sampling supplies and will be reviewed by the field sampling team prior to sample collection. No additional special requirements are needed.

2.9 Data Acquisition Requirements:

Not applicable. No secondary data will be employed for this project.

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2.10 Data Management:

All laboratory data acquired by the Region 7 EPA laboratory will be managed in accordance with Region 7 EPA/Environmental Services Division (ENSV) SOPs 2410.01F, *EPA Region 7 Laboratory Branch Data Management Procedures*; and 2410.10F, *Analytical Data Submission Packages Contents and Review*. Data will be processed, compiled, and analyzed by the RCRA PM. Any positive detections of site constituents of concern will be communicated to the residents along with required follow-up response actions in written communications. All analytical results will be communicated in writing, along with analytical reports and an interpretation of the results, to the respective residential well users.

3.0 Assessment and Oversight:

3.1 Assessment and Response Actions:

Because of the short duration of this sampling event, no audits of field sampling procedures will be performed. Assessments and response actions pertaining to the analytical phase of the project are addressed in Region 7 EPA/ENSV SOPs 2430.12F, *Regional Laboratory QC Policy*; and Qm-d, *EPA Region 7 Laboratory QA Operating Plan*. Those documents identify out-of-control conditions, who is responsible for initiating corrective actions, and what corrective steps should be taken.

3.1A Corrective Action:

Corrective actions pertaining to the analytical phase of the project are addressed in Region 7 EPA/ENSV SOPs 2430.12F, *Regional Laboratory QC Policy*; and Qm-d, *EPA Region 7 Laboratory QA Operating Plan*. Those documents identify out-of-control conditions, who is responsible for initiating corrective actions, and what corrective steps should be taken.

3.2 Reports to Management:

Laboratory results will be reported to the EPA project manager (by laboratory personnel) in accordance with reports generated by the Laboratory Information Management System Lite Tracking System at the Region 7 EPA laboratory. A trip report describing field activities, sampling techniques, locations, and problems encountered (with resolutions to those problems) will be prepared by the EPA Project Manager, following completion of the field activities described. Field modifications or deviations from the approved QAPP Amendment will be documented by the EPA project manager in the final project report. A summary report also will also be prepared by the EPA project manager following receipt of validated laboratory data for submission to EPA Region 7 management to document the status of the site and specify any further response actions.

4.0 Data Validation and Usability:

4.1 Data Review, Validation, and Verification Requirements:

Data review, validation, and verification requirements will meet Region 7 EPA/ENSV SOPs 2410.01F, *EPA Region 7 Laboratory Branch Data Management Procedures*; and 2410.10F, *Analytical Data Submission Packages Contents and Review*.

4.2 Validation and Verification Methods:

Data validation and verification will be performed in accordance with Region 7 EPA/ENSV SOPs 2410.01F, *EPA Region 7 Laboratory Branch Data Management Procedures*; and 2410.10F, *Analytical Data Submission Packages Contents and Review*.

Region 7 Amendment for Quality Assurance Project Plan
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4.3 Reconciliation with User Requirements:

If DQOs do not meet the project requirements identified in this QAPP Amendment, the data may be discarded and re-sampling or reanalysis may occur (as determined by the EPA project manager). The primary evaluation of the data will consist of a comparison of the resulting data to the MCLs listed in Table 5. If any constituents are found to exceed MCLs, the owners and the facility will be notified immediately. Subsequently, the EPA project manager and the facility will meet to discuss the results of the sampling event and possible corrective actions.

The EPA project manager is also responsible for evaluating the results of field quality control samples, including the trip blank. MS/MSD sample results will be evaluated by R7 ENSV data validators; however, if issues are identified during the validation process, the EPA PM will be consulted regarding site-specific requirements/conditions, and the usability of the data will be flagged accordingly. The resulting data set will be evaluated using positive detections in the trip blank sample as follows:

For trip blanks, the following criteria apply:

- If a compound is detected in blank sample, but not in the associated site-specific samples, no action is taken.
- Any compound detected in the sample and also in the associated blank is qualified if the sample concentration is LESS than five times the amount found in the associated blank (or 10 times for common laboratory contaminants: acetone, methylene chloride, and chloroform). Sample qualification is performed as follows:
 - If the amount of the compound detected in the sample is less than five times and the sample result is greater than the reporting limit, qualify the sample result as not detected (U) at the reported concentration. Any laboratory qualifiers associated with the detection in the blank sample (e.g., "B" for organics) should be removed.
 - If the amount of the compound detected in the sample is less than five times the amount found in the associated blank (or 10 times for common laboratory contaminants), and the sample result is less than the reporting limit, report the sample result as not detected (U) at the reporting limit.
- If a compound is detected in the blank sample, and in the associated site-specific sample, but at a concentration greater than five times the amount found in the associated blank, no action is taken.

TABLE 1: DATA QUALITY OBJECTIVE SUMMARY

Site Name: Occidental Chemical Location: Wichita, KS Activity Number: EPA PM: Brad Roberts								
Matrix/ Analysis	EPA Method	Data Quality Measurements					Sample Handling Procedures	Data Management Procedures
		Accuracy	Precision	Representativeness	Completeness	Comparability		
Water/ Volatile Organic Compounds	Drinking water method	2430.12F QM-D	2430.12F QM-D	Private well neighboring the Occidental Chemical facility	>95%; no critical samples	Use of standardized procedures for sample collection, analysis, and data management	2420.04D 2420.05E 2420.06E	2410.01F 2410.10F

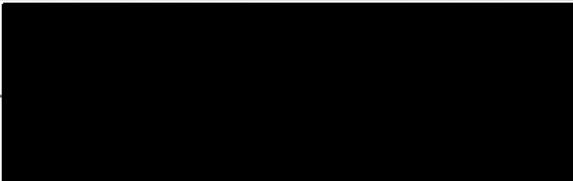
TABLE 2: SAMPLE SUMMARY BY MATRIX AND PURPOSE

Site Name: Occidental Chemicals Location: Wichita, KS Activity Number: EPA PM: Brad Roberts							
Number of Samples	Matrix	Location	Purpose	Depth or Other Descriptor	Requested Analysis	Sampling SOP	Analyses
2	Well Water	RW-1& RW-2 and MS/MSD sample (see Figure 1, Appendix A)	To evaluate whether historic or current facility practices have contaminated these two nearby drinking water wells	From a spigot near the well head and before any hose, aerator, water softener, or other treatment system. Purge for ~10 minutes, until temperature has stabilized. An even-flowing water stream at moderate pressure without splashing should be obtained and maintained throughout the purging and sampling.	VOCs in drinking water by GC/MS (Region 7 RLAB Method 3230.9C, equivalent to EPA Method 524.2)	Occidental SAP	VOCs
0	Water	Field blank	QA/QC sample	Field prepared using laboratory-provided water	VOCs in drinking water by GC/MS (Region 7 RLAB Method 3230.9C, equivalent to EPA Method 524.2)	N/A	
1	Water	Trip blank	QA/QC sample	Laboratory prepared	VOCs in drinking water by GC/MS (Region 7 RLAB Method 3230.9C, equivalent to EPA Method 524.2)	N/A	VOCs

Notes:

CFR	Code of Federal Regulations
N/A	Not applicable
QA/QC	Quality assurance/quality control
SOP	Standard operating procedure
VOC	Volatile organic compound
RW	Residential water well sample

TABLE 3: SAMPLE SUMMARY BY LOCATION

Site Name: Occidental Chemicals Location: Wichita, KS Activity Number: EPA PM: Brad Roberts		
Sample ID	Location	Analyses
Residential water well sample RW-1 (see Figure 1, Appendix A)		VOCs in drinking water by GC/MS (Region 7 RLAB Method 3230.9C, equivalent to EPA Method 524.2)
Residential water well sample RW-2 (see Figure 1, Appendix A)		
	Ex. 6 PII	

Notes:

EPA U.S. Environmental Protection Agency
 RW Residential water well sample
 RLAB Regional Laboratory
 VOCs Volatile Organic Compounds
 GC/MS Gas Chromatography/Mass Spectrometry
 SOP Standard operating procedure

Table 4 - Summary of Groundwater Samples to be Collected from Residential Wells
(Sample containers provided by the EPA Laboratory)

Analytical Parameter		VOCs	
Concentration Level		Drinking water	
Preservation		Hydrochloric acid to pH <2 Chilled to 4°Celsius	
Holding Time		14 days	
Sample Volume		Container full; no headspace	
Sample ID		No. of 40-ml vials w/septa	No. of containers
Residential Well #1		3	3
Residential Well #2		3	3
Matrix Spike/Matrix Spike Duplicate		6	6
Field Blank		0	0
Trip Blank		1	1
Total		13	13

Table 5

Specific analytes, selected analyses, associated reporting limits and Primary MCLs

VOCs in drinking water by GC/MS - EPA RLAB 3230.9C		
Analyte	Analyte concentration in micrograms per liter (parts per billion)	
	RLAB Typical Reporting Limit	MCL
1,2-Dichloroethylene (cis)	0.5	70
1,2-Dichloroethylene (trans)	0.5	100
Methylene chloride	0.5	5
Tetrachloroethylene	0.5	5
Trichloroethylene	0.5	5
Tetrachloromethane	0.5	5
Vinyl chloride	0.5	2

Notes

MCLs - Maximum Contaminant Levels

VOCs - Volatile Organic Compounds

GC/MS - Gas Chromatography/Mass Spectrometry

EPA RLAB - EPA Region 7 Regional Laboratory

Appendix A
Well Owner Questionnaire

This information will be used to evaluate the results of ground water sampling conducted at your home. Please answer to the best of your knowledge. If you do not know the answer, mark it "unknown." If you have any questions, please call Brad Roberts with the U.S. Environmental Protection Agency at (913) 551-7279, or e-mail roberts.bradley@epa.gov.

Name:
Address:
Daytime Phone:
Evening Phone:

Owner name (if other than tenant):
Phone: Address:

Is there a drinking water well on the property? Yes/No

Well location:

Is an outside tap available for sampling? Yes/No

Is this or another available sampling tap upstream from any water softener, filter, pressure tank, or other water treatment?

Would you like to be present during any future sampling? Yes/No

Well diameter:

Well depth:

Screen length:

Well material (circle one): PVC plastic steel brick/clay stone other _____

Date of installation, or approximate age:

Do you have a well log for your well?

Use(s) of water from well:

If you do not drink water from this well, what is your source of drinking water?

Does the basement have a sump pump? Yes/No

Do you shock chlorinate (disinfect/bleach) your well? Yes/No If yes, how recently?

Are there any other wells on the property? Yes/No

If yes, for what are they used?

Appendix B
Well Owner Questionnaire

This information will be used to evaluate the results of ground water sampling conducted at your home. Please answer to the best of your knowledge. If you do not know the answer, mark it "unknown." If you have any questions, please call Brad Roberts with the U.S. Environmental Protection Agency at (913) 551-7279, or e-mail roberts.bradley@epa.gov.

Name: [REDACTED]
Address: [REDACTED]
Daytime: [REDACTED]
Evening Phone: [REDACTED]

Ex. 6 PII

Owner name (if other than tenant):

Phone:

Address:

Is there a drinking water well on the property? Yes/No

Well location: [REDACTED]

Is an outside tap available for sampling? Yes/No

Is this or another available sampling tap upstream from any water softener, filter, pressure tank, or other water treatment?

Would you like to be present during any future sampling? Yes/No

Well diameter: 6"

Well depth: 75-80 ft

Screen length: 40' - to top guess

Well material (circle one): PVC plastic steel brick/clay

stone other

Date of installation, or approximate age: 25-30 years

Do you have a well log for your well? No

Use(s) of water from well: all domestic + from animals
+ garden heat pump

If you do not drink water from this well, what is your source of drinking water?

Ex. 6 PII

Does the basement have a sump pump? Yes/No

Do you shock chlorinate (disinfect/bleach) your well? Yes/No

If yes, how recently?

Are there any other wells on the property? Yes/No

If yes, for what are they used? [REDACTED]

Appendix B
Well Owner Questionnaire

This information will be used to evaluate the results of ground water sampling conducted at your home. Please answer to the best of your knowledge. If you do not know the answer, mark it "unknown." If you have any questions, please call Brad Roberts with the U.S. Environmental Protection Agency at (913) 551-7279, or e-mail roberts.bradley@epa.gov.

Name:

Address:

Daytime

Evening Phone:

Owner name (if other than tenant):

Phone:

Address:

Is there a drinking water well on the property? Yes/No

Ex. 6 PII

Well location:

Is an outside tap available for sampling? Yes/No

Is this or another available sampling tap upstream from any water softener, filter, pressure tank, or other water treatment?

Would you like to be present during any future sampling? Yes/No

Well diameter: ?

Well depth: ?

Screen length: ?

Well material (circle one): PVC plastic steel brick/clay stone other _____

Date of installation, or approximate age: Prior to 1970

Do you have a well log for your well? No

Use(s) of water from well: All domestic, drinking

If you do not drink water from this well, what is your source of drinking water? NA

Does the basement have a sump pump? Yes/No

Do you shock chlorinate (disinfect/bleach) your well? Yes/No If yes, how recently?

Are there any other wells on the property? Yes/No

If yes, for what are they used?

Ex. 6 PII

**CHAIN OF CUSTODY RECORD
ENVIRONMENTAL PROTECTION AGENCY REGION VII**

ACTIVITY LEADER(Print) <i>Brad Roberts</i>	NAME OF SURVEY OR ACTIVITY <i>6174</i>	DATE OF COLLECTION <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:33%; text-align: center;"><i>22</i> DAY</td> <td style="width:33%; text-align: center;"><i>8</i> MONTH</td> <td style="width:33%; text-align: center;"><i>13</i> YEAR</td> </tr> </table>	<i>22</i> DAY	<i>8</i> MONTH	<i>13</i> YEAR	SHEET <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:50%; text-align: center;"><i>1</i> of</td> <td style="width:50%; text-align: center;"><i>1</i></td> </tr> </table>	<i>1</i> of	<i>1</i>
<i>22</i> DAY	<i>8</i> MONTH	<i>13</i> YEAR						
<i>1</i> of	<i>1</i>							

CONTENTS OF SHIPMENT

SAMPLE NUMBER	TYPE OF CONTAINERS					SAMPLED MEDIA					RECEIVING LABORATORY REMARKS/OTHER INFORMATION (condition of samples upon receipt, other sample numbers, etc.)
	CUBITAINER	BOTTLE	BOTTLE	BOTTLE	VOA SET (2 VIALS EA)	water	soil	sediment	dust	other	
	NUMBERS OF CONTAINERS PER SAMPLE NUMBER										
<i>6174-1</i>					<i>3</i>	<i>X</i>					
<i>↓ 2</i>					<i>1</i>	<i>X</i>					

Complete

DESCRIPTION OF SHIPMENT <i>4</i> PIECE(S) CONSISTING OF _____ BOX(ES) <i>1</i> ICE CHEST(S): OTHER _____	MODE OF SHIPMENT _____ COMMERCIAL CARRIER: _____ _____ COURIER <input checked="" type="checkbox"/> SAMPLER CONVEYED (SHIPPING DOCUMENT NUMBER) _____
---	--

PERSONNEL CUSTODY RECORD				
RELINQUISHED BY (SAMPLER) <i>Brad Roberts</i>	DATE <i>8/23/13</i>	TIME <i>9:20A</i>	RECEIVED BY <i>Nicole Roberts</i>	REASON FOR CHANGE OF CUSTODY <i>Analysis</i>
<input type="checkbox"/> SEALED <input checked="" type="checkbox"/> UNSEALED			<input type="checkbox"/> SEALED <input checked="" type="checkbox"/> UNSEALED	
RELINQUISHED BY	DATE	TIME	RECEIVED BY	REASON FOR CHANGE OF CUSTODY
<input type="checkbox"/> SEALED <input type="checkbox"/> UNSEALED			<input type="checkbox"/> SEALED <input type="checkbox"/> UNSEALED	
RELINQUISHED BY	DATE	TIME	RECEIVED BY	REASON FOR CHANGE OF CUSTODY
<input type="checkbox"/> SEALED <input type="checkbox"/> UNSEALED			<input type="checkbox"/> SEALED <input type="checkbox"/> UNSEALED	